

Model # AWLH3025

User's Manual

Ver. 1A

REGULATORY STATEMENTS

FCC Certification

The United States Federal Communication Commission (FCC) and the Canadian Department of Communications have established certain rules governing the use of electronic equipment.

Part15, Class B

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interface, and
- 2) This device must accept any interface received, including interface that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

CAUTION:

- To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
- 2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Table of Contents

INTRODUCTION	1
WIRELESS NETWORK OPTIONS	1
The Peer-to-Peer Network	1
The Access Point Network	2
LED INDICATORS	
Power Indicator: (Orange LED)	
Act Indicator: (Green LED)	
INSTALLATION	4
INSTALL THE DRIVER & UTILITY	4
INSTALL THE DEVICE	7
Note for Windows 98 users:	7
Note for Windows 2000 users:	7
Note for Windows XP users:	8
Verify Device Installation	10
CONFIGURATION	11
Accessing the Configuration Utility	11
MAIN TAB	
Advanced Tab	16
Privacy Tab	16
STATISTICS TAB	
About Tab	21

UNINSTALLATION	
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INTRODUCTION

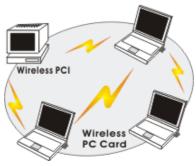
The **802.11g Wireless LAN Card** is a device that allows you to connect your computer to a Wireless Local Area Network (WLAN). A wireless LAN allows your system to use wireless Radio Frequency (RF) technology to transmit and receive data without having to physically attach to the network. The wireless protocols that come with this product ensure data security and isolation from interference generated by other radio frequencies.

This card also allows you to take full advantage of your computer's mobility with access to real-time information and online services anytime and anywhere. In addition, this device eliminates the hassle of pulling cable through walls and under furniture. It even allows you to place your system in locations where cabling is impossible. Modifying and augmenting networks has never been so easy.

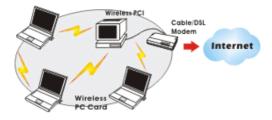
Wireless Network Options

The Peer-to-Peer Network (a.k.a. Ad-Hoc)

This network installation lets you set a small wireless workgroup easily and quickly. Equipped with wireless PC Cards or wireless PCI cards, you can share files and printers between each PC and laptop.

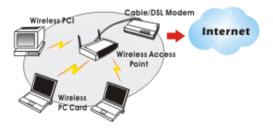


You can also use one computer as an Internet Server to connect to a wired global network and share files and information with other computers via a wireless LAN.



The Access Point Network (a.k.a. Infrastructure)

The network installation allows you to share files, printers, and Internet access much more conveniently. With the Wireless LAN Card, you can connect wirelessly to a wired global network via an access point or wireless router.



LED Indicators For Wireless Network Adapter Card

Power Indicator: (Green LED)

This LED will illuminate when the driver is installed.

Act Indicator: (Green LED)

This LED flickers when the Wireless Network Adapter is transmitting/receiving data.

INSTALLATION

Caution: Be sure to power off your computer before inserting the PCI adapter.

Install the Driver & Utility

Step 1 Insert the PCI adapter into an available PCI slot and turn on your

computer.

Step 2 Windows will detect the adapter and request for a driver. Click **Cancel** to quit the wizard and insert the Driver & Utility CD into your CD drive.

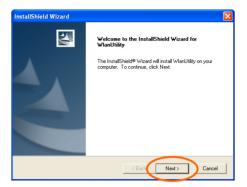
Step 3 Select Install Driver & Utility from the setup menu.

Note: If the setup menu does not appear automatically, click Start, Run,

type D:\Setup.exe (where D is the letter of your CD drive) and click OK.



Step 4 When the welcome screen appears, click Next.



Step 5 Click **Next** to accept the default destination folder to install the software or click **Browse** to manually select a different destination folder.

InstallShield Wizard	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install WlanUtility in the following folder.	
To initial to this folder, click Next. To install to a different folder, click Br another folder.	rowse and select
Destination Folder	
C:WvTanUtility	Browse
InstallShield	xt > Cancel

Step 6 Click Next at the Select Program Folder screen.

InstallShield Wizard
Select Program Folder Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue. Program Folders:
WianUtility
Existing Folders: Accessories Addinistrative Tools Addobe Addobe Acrobat EPSON Printers Eraser Giames HewlettPackard Macromedia Dreamweaver 4
InstallShield < Back Next> Cancel

Step 7 Remove the Driver & Utility CD from your CD drive and then click **OK** to restart your computer.

Restarting Windows	
Setup has finished copying files to your computer. Before you can use the program, you must restart your computer.	
Choose one of the following options and click DK to finish setup.	
Yes, I want to restart my computer now. No, I will restart my computer later.	
ОК	

Install the device

Note: Make sure the procedures in "**Install the Driver & Utility**" have been performed. In most cases, Windows will automatically install the driver after the computer is restarted, if the Found New Hardware Wizard appears, follow the steps below.

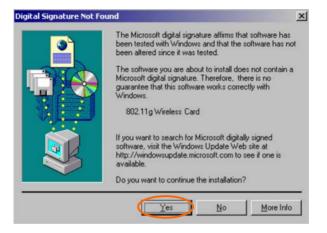
Note for Windows 98 & ME users:

Before installing the device, make sure you have your Windows 98 or ME CD at hand. You may be asked to insert the Windows 98 or ME CD in order to install specific files.



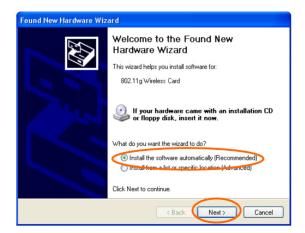
Note for Windows 2000 users:

During the installation, when the "Digital Signature Not Found" screen appears, click "Yes" to continue.

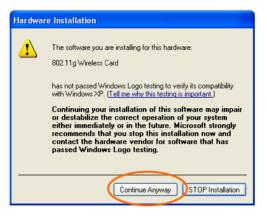


Note for Windows XP users:

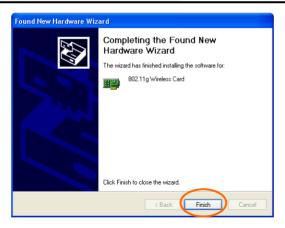
1. Select Install the software automatically (Recommended) and click Next.



3. Click Continue Anyway at the Windows Logo testing screen.

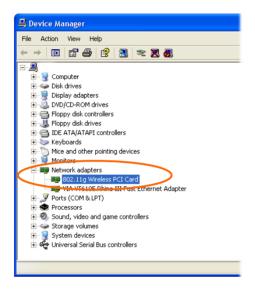


4. Click Finish to complete the installation.



Verify Device Installation

To verify that the driver has been properly installed in your computer, go to Start \rightarrow Settings \rightarrow Control Panel \rightarrow System (\rightarrow Hardware) \rightarrow Device Manager. Expand the Network adapters item. If the 802.11g Wireless Wireless Network Adapter PC Card is listed, it means that your device is properly installed and enabled.



CONFIGURATION

After successfully installing the driver and utility, a Utility Icon will appear on the desktop.



If the Utility Icon doesn't appear automatically, go to Start \rightarrow (All) Programs \rightarrow WlanUtility \rightarrow Wireless LAN Utility.

Accessing the Configuration Utility

The Configuration Utility is accessed by double-clicking on the **Wireless** LAN Utility Icon on the Desktop.

All settings are categorized into 5 Tabs:

Main Tab

Advanced Tab

Privacy Tab

Statistics Tab

About Tab

Main Tab

The Main tab displays the current status of the Wireless Network Adapter.

😵 Wireless LAN Configure	ation Ut	ility				
Main Advanced Privacy	Statistics	About				
Status: Connected to network	¢.				External	Configuration
SSID	Mode Acce		Signal Normal	BSS ID 00-90-48-28-71	C-96	Connect
• Al _ House	A000			00 30 40 2011	0.00	Modify
						Rescan
Current Configuration Pref. SSID: AP_Rou BSS Type: Access P		BSSIE	D: 00-90)-4B-28-7C-96	Channel: Tx Rate:	6 54 Mbps
Signal quality Normal	-48/0	T× R R× R	late: 0.1 Pate: 0.1			1000 100 10 10 10 10 10 10 100 1000 10
				OK	Cancel	Apply

Item	Description		
External	Uncheck the box to use this utility to configure		
Configuration	the wireless network adapter. Or check the box		
	to use Windows XP's Wireless Zero		
	Configuration Utility.		
SSID	The SSID is the Network ID shared among all		
	devices in your wireless network.		
	The name must be identical for all devices to		
	connect to the same network.		
	✓ No encryption		
	Encryption enabled		
	4 ¥ For TI-Based WLAN		
	For TI-Based WLAN with encryption		

Item	Description
Mode	Displays the type of connection: Access Point or Peer-to-Peer.
Ch	Displays the channel that is currently in use.
Signal	Displays the signal strength of the connection between the Wireless Network Adapter and the Access Point it connects to.
BBS ID	Displays the MAC address of the target device.

Current Configuration

Pref. SSID	Shows the current SSID the wireless network	
11cl. 551D		
	adapter is connected to.	
BSS Type	Shows the current connection type: Access	
	Point or Peer to Peer.	
BSSID	The MAC address of the device that the	
	wireless network adapter is connected to.	
Channel	Shows the current channel.	
Tx Rate	Shows the current transfer rate.	
Signal Quality	Shows the signal strength of the connection	
	between the wireless network adapter and the	
	device it connects to.	

Connect button	Highlight one of the devices from the device
	list and press the Connect button to access it.
Modify button	There will be two tabs for you to modify, see
	the detailed information on next page.
Rescan button	Searches all available networks. Clicking on
	this button, the wireless adapter will start to
	rescan and list all available devices.

Wireless LAN New Configuration
New Connection Advanced
Preferred SSID: AP_Router 4x Config BSS Type: Access Point Tx Rate: Auto Channet: 5 Power Mode: No Power Save
Tx Power Level Mode Profile High Power Delete Load Save
OK Cancel Apply

Preferred SSID	Type in the SSID of the target device you want to connect to.
BSS Type	You can select the connection type: Peer-to-Peer , Access Point or Auto Mode .
Tx Rate	You can select the data rate or set to auto mode from the pull-down menu.
Channel	Select the channel you want to use.
Power Mode	No Power Save : the adapter will be in full active mode.
	Max Power Save : the power save mode will be enabled.
4x Config	Select to disable or enable the TI-Based 4x function.
Tx Power Level	Select the transmit power level: Low Power, Medium-Low Power, Medium Power, Medium-High Power, High Power. The power level function is used to extend the communication distance.
Mode	Select from 802.11b , 802.11b +, 802.11g , or B&G Mode (If you choose this option the wireless network adapter will automatically select the suitable standard).
Profile	Enter the profile name and click the Save button to save your configuration, To open the profiles you saved, select the profile from the pull-down menu and then click the Load button.

Wireless LAN New Configuration		
New Connection Advanced Thresholds Fragment Threshold: 4096 RTS Threshold: 4096 Preamble © Long Preamble © Short Preamble	Retry limits Short 10 Long 4	
	OK Cancel	Apply

Fragment Threshold	You can fragment the MSDU or MMPDU into smaller sizes to increasing the reliability of frame transmission. (The maximum value of 4096 means no fragmentation is needed). The throughput performance will decrease however.		
RTS Threshold	This value should remain at its default setting of 4096 . Should you encounter inconsistent data flow, only minor modification of this value is recommended.		
Preamble	A preamble is a signal used in wireless environment to synchronize the transmission timing, including Synchronization and Start frame delimiter. (Note: If you want to change the Preamble type to Long or Short, please check the settings of your access point or wireless router.		
Retry limits	You can set the number of retries if no acknowledgement appears from the receiving station.		

Advanced Tab

The **Advanced** tab displays the current status of the Wireless Network Adapter.

Wireless LAN Confi	guration Utility		
Main Advanced Priva	acy Statistics About		
Domain & Power Inform	nation	Security Information	
AP Country Code:	NA	Encryption:	Disable
AP Tx Power Level:	0 db	802.11 Authentication	n: Open System
STA Reg. Domain: F	FCC	Configuration Informa	tion
		dot11 Mode:	Custom
		4× State:	4X is Active
Network Information		Packet Burst State:	Packet Bursting is Inactive
MAC Addr:	00-E0-98-BE-1A-40	Power Save	No Power Save
IP Address:	192.168.8.21	Preamble:	Long
Net. Mask:	255.255.255.0	Fragment Threshold:	4096
Gateway:	192.168.8.1	RTS Threshold:	4096
		OK	Cancel Apply

Privacy Tab

Use the **Privacy** Tab to configure your encryption settings. **WEP** encryption or WPA-PSK can be used to ensure the security of your wireless network. Highlight WEP and click on the **Configure** button.

😵 Wireless LAN Configuration Utility	
Main Advanced Privacy Statistics About	1
None Configure WEP 802.1X CCX Enception method WPA None	
The wireless network is not secure	
OK Cancel	Apply

Privacy Mode	Choose either WEP or WPA mode and click		
	Configure : (Note: CCX is not available for this		
	adapter).		
	WEP is a data security mechanism based on a 40		
	Bit (a.k.a. 64 Bit)/128 Bit/256 Bit shared key		
	algorithm.		
	WPA is more secure than WEP, and should be		
	used if possible.		

0.1		Key Size
C 2		40 bit
С з		40 bit
C 4		40 bit
Authentication	Key Format Hex ASCII	

WEP Configuration

Authentication	The authentication type defines ID verification and		
Autornication	access privileges of roaming wireless network		
	cards.		
	You may choose from Open System , Shared Key ,		
	or Auto Switch.		
	Open System: If your access point/wireless router		
	is using "Open System" authentication, then the		
	wireless adapter will need to be set to the same		
	authentication type.		
	Shared Key: Shared Key is when both the sender		
	and the recipient share a secret key.		
	1 5		
	Auto Switch: Select Auto Switch for the adapter to automatically select the appropriate		
	to automatically select the appropriate authentication mode.		
Encryption 1-4	WEP (Wired Equivalent Privacy) encryption can		
	be used to ensure the security of your wireless		
	network. Select one Key and Key Size then enter		
	the appropriate key value in the Encryption field.		
	Note: You must use the same Key #, Key Size, and		
	Encryption Key on both the host and destination		
	devices in order to establish a connection.		
	KEY1 ~ KEY 4 : You can specify up to 4 different		

	keys, but only one can be used at a time. Encryption : Enter the key value in this field. A key of 10 hexadecimal characters (0-9, A-F) is
	required if a 40-bit (a.k.a. 64-bit) Key Size is selected.
	A key of 26 hexadecimal characters (0-9, A-F) is required if a 128-bit Key Size is selected.
	A key of 58 hexadecimal characters (0-9, A-F) is required if a 256-bit Key Size is selected.
Key size	Select from 40-bit (a.k.a. 64-bit), 128-bit or 256-bit .

PSK Config	uration	×
– Pre-shared ke	ay	
Passphrase:		
	🗖 Unmask	
	OK. Cancel]

WPA-PSK Configuration

If your wireless router/access point supports WPA, you can choose to enable WPA.

1. Select WPA from the Privacy tab, highlight Preshared Key and click Configure.

2. Click on the Passphrase field and enter a passphrase for the WPA key. (Note: minimum passphrase key must be 8 characters and must match the WPA key on your wireless router/access point).

3. You can check on the Unmask check box to see the passphrase you've entered.

4. Click OK to submit the passphrase.

Statistics Tab

The Statistics Tab displays any available statistics including Receive packets, Transmit packets, Association reject packets, Association timeout packets, Authentication reject packets, and Authentication timeout packets.

😵 Wireless LAN Confi	guration Utility		
Main Advanced Priv	acy Statistics About		
Receive Good Packets:	136	Transmit Good Packets:	258
Partial Packets:	0	Ack Packets:	0
Duplicate Packets:	0	RTS Packets:	0
Error Packets:	0	CTS Packets:	0
Beacons:	58166	Beacons:	0
Total Bytes:	17857	Total Bytes:	8599
Association Rejects:	0	Authentication Rejects:	0
Association Timeouts:	0	Authentication Timeouts:	0
		OK Cancel	Apply

About Tab

Click on the About tab to view basic version information about the OS Version, Utility Version, Driver Version, Firmware Version and EEPROM Version.

😵 Wireless LAN Config	uration Utility	
Main Advanced Privad	y Statistics About	
	Copyright (C) 2004. Wireless LAN Configuration	U tility.
Wireless Networking	OS Version: Windows XP. Service Pack 1. Buil	d 2600.
	Utility Version: 6.0.0.49	
AirLink+ 802.11g Wireless	Driver Version: 6.0.0.18 (NDIS 5.1)	
Cardbus / PCI Adapter	Firmware Version: 1.2.0.30	
	EEPROM Version: 5.1.0 TI G Radio	
	OK Canc	el Apply

UNINSTALLATION

If you need to uninstall the driver and utility, follow the steps below.

(When you uninstall the utility, the driver will be uninstalled as well.)

- 1. Go to Start → (All) Programs → WlanUtility → Uninstall Wireless LAN Utility.
- 2. Click OK to continue.



3. Select Yes, I want to restart my computer now, and then click Finish to complete the uninstalled procedure.



Appendix

Technical Support

E-mail: support@airlinkplus.com

Toll Free: 1-888-746-3238

Web Site: www.airlinkplus.com